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490	7590	03/26/2004	EXAMINER	
VIDAS, ARRETT & STEINKRAUS, P.A. 6109 BLUE CIRCLE DRIVE SUITE 2000 MINNETONKA, MN 55343-9185			HSIEH, SHIH YUNG	
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 23

Application Number: 09/852,253

Filing Date: May 09, 2001

Appellant(s): MCPHERSON, MATHEW

SEARCHED

MAILED

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GROUP 2800

William E. Anderson II  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed November 28, 2003.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

The statement made by the Appellant is not correct because there is a related appeal 09/567,145 copending with the instant application.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct, but in view of the terminal disclaimer issues III and IV are moot.

**(7) *Grouping of Claims***

Appellant's brief includes a statement that claims 1-2, 4-23, and 25-27 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) *ClaimsAppealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

2,674,912	PETEK	4-1954
168,665	OEHRLEIN	10-1875

Sloane, Irving "STEEL-STRING GUITAR CONSTRUCTION" a sunrise Book, E.P.

Dutton & CO, INC, New York (1975), p. 19

**(10) *Grounds of Rejection***

Claims 1-2, 4-23 and 25-27 are rejected under 35 U.S.C. 103. However, the double patenting rejection against claims 1, 4-6, 9-23, and 25-27 is withdrawn based on approved disclaimers.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 7-8, 20-21, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petek (2,674,912). in view of Sloane (Steel-String Guitar Construction, E. P. Dutton & Co. Inc. New York, 1975, pp 19).

Regarding claim 1, Petek discloses a guitar (col. 1, lines 30-31) having a body (Fig. 1) having a soundboard comprising a first layer (10) and a second layer (12) both layers being bonded together (col. 2, line 32), wherein the first and second layers are made of different types of wood (col. 1, lines 10-11 and col. 2, lines 10-20).

The difference between Petek's guitar and claim 1 is that claim 1 recites the sound board comprises no more than two layers of wood bonded together.

Sloane teaches no more than two layers of wood for the sound board of a guitar (col. 2, lines 20-22) to improve the performance of the guitar. It would have been obvious to one having ordinary skill in the art to modify Petek's guitar as taught by Sloane to construct the sound board of a guitar with no more than two layers of wood for the purpose of improving the performance of the guitar.

Regarding claim 2, Petek discloses the claimed invention except the type of wood to make the first and second layers being chosen from the group consisting of spruces, cedars, furs, pines, redwood, maple, koa, mahogany, berch and popple.

Sloane teaches using spruce, maple, and mahogany and other wood (pp19) for a laminated wood guitar soundboard for improving the performance of the guitar. It would have been obvious to one having ordinary skill in the art to modify Petek's soundboard as taught by

Sloane to use the type of wood being chosen from the group consisting of spruce and maple for the purpose of improving the performance of the guitar.

Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use different wood material, since it has been held to be within the general skill of a worker in the art to select a known wood material on the basis of its suitability for the intended use for the purpose of improving the performance of the guitar. *In re Leshin*, 125 USPQ 416.

Regarding claims 7 and 8, see statement above.

Regarding claims 20-21, and 23, 25, see above statement.

3. Claims 22, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petek in view of Sloane as applied to claims 1, 20, 21, and 25 above, and further in view of Oehrlein (168,665).

Petek in view of Sloane disclose the claimed invention except that the two layers of wood are in substantially parallel planes and running in substantially perpendicular direction.

Oehrlein teaches a guitar construction with wood layers in substantially parallel planes and running in substantially perpendicular direction (Fig. 1) for great strength. It would have been obvious to one having ordinary skill in the art to modify Petek in view of Sloane's soundboard as taught by Oehrlein to include a soundboard with two layers of wood in substantially parallel planes and running in substantially perpendicular direction for the purpose of great strength.

**(11) *Response to Argument***

Response to Appellant's Argument I,

Group A, Claims 1, 20, 21, 23, and 25

The Appellant argued that "Petek is directed at providing a sounding board or diaphragm with a large ratio of stiffness to weight. This requires three layers".

The examiner recognizes that Petek teaches a three layer sounding board to provide stiffness. However, the examiner disagrees with the Appellant that Petek teaches away from the combination. Petek teaches improving stiffness of a sounding board as compared to a similar sized solid sounding board (col. 1, lines 8-12). Thus, the examiner considers Petek as teaching a three layer sounding board will be stiffer than a

single layer. Sloane teaches two layers sounding board is less rigid than three layers. It follows that a sounding board of three layers is stiffer than two layers, and a sounding board of two layers is stiffer than a single layer. Thus, a two layers sounding board provides more flexibility and is less rigid as stated by Sloane, than a three layers sounding board. Therefore, the obvious motivation is to construct a sounding board with two layers to be less rigid and more responsive to sound than a three layer sounding board, and yet one still obtains greater rigidity than a single layer, which agrees with Petek's teaching.

Group B, Claim 2

The appellant states that claims 2 requires the types of wood be chosen from a certain group, and argues that Sloane's disclosure of various types of wood does not provide motivation for selecting of each layer a wood of different type.

The examiner disagrees with Appellant's argument because:

1. Sloane teaches that "Rosewood-veneered plywood have also been used for guitars". It is noted that veneer is defined as "a thin layer of material, as wood or plastic, bonded to and used for covering a usually inferior material", a two layer plywood, in Webster's II New Riverside University Dictionary. Thus, Sloane does provide motivation of the two layers of wood of different type.
2. The instant application neither discloses the types of wood chosen from the recited group are more beneficial than other types of wood nor specifies a combination of the wood in the recited group to distinguish it from the Sloane's teaching.

Therefore, it would have been obvious to one having ordinary skill in the art to choose different types of wood from the wood types listed in Petek and Sloane for the two layers sounding board to achieve the desired sound resonance result.

Group C, claim 7

The appellant argued that claim 7 recited the types of wood be cedar for the first layer and spruce for the second. Again, the appellant fails to provide evidence or test results to substantiate the benefit of this combination of wood to be more beneficial than other combinations. The examiner's response to this argument is the same as to claim 2 because it is obvious to one having ordinary skill in the art to choose any of the Petek and Sloane different types of wood for the two layers sounding board to achieve the desired sound resonance result, and achieve a desired esthetic look.

Group D, Claim 8

The appellant argued that claim 8 recited the types of wood be redwood for the first layer and spruce for the second. The examiner's response to this argument is the same as to Claim 7.

Response to Appellant's Argument II

Group A, Claims 22 and 26

Before responding to the Appellant's argument the examiner would like to point out the following facts:

1. Plywood is defined as "a structure material consisting of layers of wood glued tightly together with the grains of adjoining layers at right angle to each other" in Webster's II New Riverside University Dictionary.

2. Sloane discloses the use of plywood for guitars including a two-ply sounding board as addressed in Argument I Group A.

The Appellant's major argument is that Oehrlein teaches a bottom board wherein the grain direction of two of the layers of wood are in differing directions (actually they are in substantially perpendicular direction as shown in Fig. 1), and "The sound board or top of a guitar is not interchangeable with the back of the guitar". However, the Appellant recognizes Oehrlein's teaching of a strong cross grain plywood bottom board which does not utilize ribs to prevent warping.

The examiner responds that Petek in view of Sloane, by definition, already teach a two-ply plywood sounding board having grain direction of the layers of wood in perpendicular directions. The Oehrlein's teaching and the explicit showing of the grain direction in Fig. 1 merely support the disclosure of Petek in view of Sloane's teaching of a two-ply sounding board for a combination of strength and flexibility. Further, the Appellant admits that Oehrlein teaches the cross grain technique of plywood for strengthening a guitar's part.

#### Group B, Claim 27

The Appellant's argument is the same as in Group A for the recited limitations of perpendicular grain directions adjoining layers of the sounding board. The examiner's response to this argument is the same as to claims 22 and 26.

#### Issue III and IV

The appellant has filed a disclaimer to address the rejection regarding claims 1, 4-6, 9-23, and 25-27, and another disclaimer to address the rejection regarding claims

4-6, and 9-19. The disclaimers have been approved, therefore, the double patenting rejection against these claims is hereby withdrawn.

For the above reasons, it is believed that the rejections should be sustained.

Respectively Yours



SHIH-YUNG HSIEH  
PRIMARY EXAMINER

Conferee:

Brian Sircus



Robert Nappi



Shih-yung Hsieh

